

Claims:

I claim:

1. An outcome from a waste processing process or apparatus comprising
5 a collection of pieces of organic matter wherein the pieces are dry enough to
substantially reduce odors produced by microbial growth.

2. The outcome of claim 1 wherein the pieces have no dimension longer
than about 2 cm.

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3. The outcome of claim 1 wherein the pieces are dry enough to be
generally free of odors from microbial activity for a period of at least 3 days
when stored indoors.

15 4. The outcome of claim 1 wherein the pieces are dry enough to be
generally odorless for a month or more when stored indoors.

5. A solid having a substantially fixed shape and made of a collection of
pieces according to claim 1.

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6. The solid of claim 5 wherein the pieces are bound together with a
biodegradable binder.

25 7. The solid of claim 5 wherein the pieces are bound together with a
compostable binder.

8. The solid of claim 5 wherein the pieces are bound together with a
carbohydrate binder.

30 9. The solid of claim 5 wherein the pieces are closely packed or
compacted together.

10. The use of the outcome or solid of claim 1 as an interim form of organic matter created and existing after the organic matter is deemed to be waste by a person, household or business.
- 5 11. The use of the outcome or solid of claim 10 to facilitate the storage, transfer or exchange of the organic matter before it is discarded or used for another purpose.
- 10 12. A process for producing dried pieces of organic waste comprising the steps of,
 - reducing raw organic waste to pieces; and,
 - drying the raw organic waste,
 - wherein
 - the organic waste may be dried before or after it is reduced; and,
- 15 13. the organic waste is dried to a moisture content at which it is generally free of odors caused by microbial activity.
- 20 14. A process for producing a solid, comprising the steps of
 - reducing raw organic waste to pieces;
 - producing a mixture of the pieces, water and a biodegradable binder;
 - forming the mixture into a shape; and,
 - drying the shaped mixture.
- 25 15. The process of claim 13 further comprising the step of heating the shaped mixture.
- 30 16. The process of claim 13 further comprising removing liquid water from the mixture.
17. The process of claim 13 further comprising capturing water vapor emitted while drying the shaped mixture.

17. The process of claim 16 further comprising converting the captured water vapor to liquid water.
18. The process of claim 15 wherein the liquid water is re-used in a 5 subsequent process for producing a solid.
19. The process of claim 13 wherein the water or biodegradable binder in the mixture is obtained from the raw organic waste.
- 10 20. The process of claim 13 wherein the binder is a carbohydrate.
21. The process of claim 14 wherein the binder is activated by the heating.
- 15 22. An apparatus comprising elements adapted to perform the steps of claim 13.
23. An apparatus for receiving and processing organic waste comprising,
 - (a) a processing module adapted to perform one or more of the steps of claim 13; and,
 - 20 (b) a receiving module adapted to receive organic waste and adapted to be connected to or released from the processing module,
wherein when the receiving module is connected to the processing module, the organic waste may be transferred to the processing module and one or both modules may be operated to perform the steps of claim 13.
- 25 24. The apparatus of claim 23 wherein the receiving module is portable.
25. The apparatus of claim 23 wherein the processing module is stationary.
- 30 26. The apparatus of claim 23 wherein the processing module is stationary while processing.

27. The apparatus of claim 23 wherein the processing module is located below a sink or counter and the receiving module and processing module interface through a hole in the sink or counter.

5 28. The apparatus of claim 23 wherein the receiving module is an under sink garbage disposer.

29. An apparatus for processing organic waste comprising,
(a) a receiving area or module having,
10 (i) a first opening for admitting organic matter into the receiving area;
(ii) one or more sides defining a plenum in communication with the opening for receiving and temporarily storing organic matter;
(iii) a reducing implement for reducing organic matter to pieces;
15 and,
(iv) a second opening for discharging reduced organic matter from the plenum; and,
(b) a processing area or module having,
20 (i) a first opening in communication with the second opening of the receiving module for receiving pieces of organic matter from the receiving area; and,
(ii) a form for supporting the organic matter while it dries into a solid; and,
(iii) a second opening for removing the solid from the processing
25 area.

30. The apparatus of claim 29 wherein the receiving area has a lid for closing the first opening.

30 31. The apparatus of claim 30 wherein the receiving area further comprises a closure for the second opening and the lid and closure, when both closed, reduce the emission of odors from the plenum.

32. The apparatus of claim 29 wherein the receiving area further comprises a screen within the plenum and the second outlet of the receiving area is located outside of the screen such that organic waste may not pass to the 5 processing area until it is less than the size of the openings of the screen.
33. The apparatus of claim 29 wherein the receiving area further comprises an inlet to add water to the plenum.
- 10 34. The apparatus of claim 29 further comprising a vent for removing water vapor.
- 15 35. The apparatus of claim 29 further comprising a collector for collecting water vapor.
36. The apparatus of claim 35 further providing a water extractor for extracting liquid water from the collected water vapor.
- 20 37. The apparatus of claims 29 further comprising a receptacle for liquid water.
38. The apparatus of claim 37 further comprising a passage for liquid water to pass from the receptacle to the receiving area.
- 25 39. The apparatus of claims 37 wherein the receptacle receives liquid water collected from extracted water vapor.
40. The apparatus of claim 29 further comprising an injector for introducing a binder to the organic matter.
- 30 41. The apparatus of claim 29 further comprising a heater for heating the shaped organic matter.

42. The apparatus of claim 29 wherein the receiving area is removable and replaceable from the processing area.

5 43. The apparatus of claim 42 wherein the communication between the second opening of the receiving area and the first opening of the processing area is broken when the receiving area is removed and re-made when the receiving area is replaced.

10 44. An apparatus for processing organic waste comprising,
(a) a plenum for receiving organic matter;
(b) a first opening for admitting organic matter into the plenum;
(c) a reducing implement for reducing organic matter to pieces;
(d) a passageway for transferring reduced organic matter from the
15 plenum to a form for supporting the discharged organic matter; and,
(e) a second opening for removing the solid from the processing area.

45. The apparatus of claim 44 wherein the plenum has a lid for closing the first opening.

20 46. The apparatus of claim 44 further comprising a screen within the plenum and wherein the passageway is located between the outside of the screen and the plenum, whereby organic waste does not enter the passageway until it has been reduced to less than the size of the openings of
25 the screen.

47. The apparatus of claim 44 further comprising an inlet to add water to the plenum.

30 48. The apparatus of claim 44 further comprising a vent for removing water vapor.

49. The apparatus of claim 44 further comprising a collector for collecting water vapor.
50. The apparatus of claim 49 further providing a water extractor for extracting liquid water from the collected water vapor.
51. The apparatus of claims 44 further comprising a receptacle for liquid water.
- 10 52. The apparatus of claim 51 further comprising a passage for liquid water to pass from the receptacle to the plenum.
53. The apparatus of claims 51 wherein the receptacle receives liquid water collected from extracted water vapor.
- 15 54. The apparatus of claim 44 further comprising an injector for introducing a binder to the organic matter.
55. The apparatus of claim 44 further comprising a heater for heating the shaped organic matter.
- 20 56. A process for processing waste comprising the steps of, producing a collection or solid of claim 1; and, composting the collection or solid.
- 25 57. A process for operating a program making use of organic matter comprising the steps of, encouraging persons to produce collections or solids of claim 1; collecting the collections or solids; and, 30 making use of the collected collections or solids.

58. The process of claim 57 wherein the persons are encouraged by giving them consideration in return for the collections or solids.

59. The process of claim 57 wherein the organic matter is made use of by 5 composting it.

60. An outcome according to claim 1 having a moisture content of 20% or less, the percentage calculated based on the weight of water in the outcome divided by the weight of the outcome including the water in it.

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61. An outcome according to claim 1 having a moisture content between 5% and 15%, the percentage calculated based on the weight of water in the outcome divided by the weight of the outcome including the water in it.